

Worksheet 2.3 Postulates

Write **Sometimes**, **Always**, or **Never** to indicate your answer.

1. Given points A, B, and C, $AB + BC$ _____ equals AC.
2. If point B lies in the interior of $\angle AOC$ then $m\angle AOB + m\angle BOC$ _____ equals 180.
3. A line _____ contains at least two points.
4. Two points _____ determine a plane.
5. Through any two points there is _____ more than one line.
6. If two points are in a plane, then the line that contains the points is _____ in that plane.
7. The intersection of two planes is _____ a segment.
8. If two lines are cut by a transversal, then corresponding angles are _____ congruent.
9. If three sides of one triangle are congruent to three sides of another triangle, then the triangles are _____ congruent.
10. If one angle of one triangle is congruent to one angle of another triangle, then the two triangles are _____ similar.

Classify each of the statements are true or false.

11. The measure of the arc formed by two adjacent arcs is the sum of the measures of the arcs.
12. If two figures have the same area, then they are congruent.
13. The area of a region is the sum of the areas of its overlapping parts.
14. If the exterior sides of two adjacent angles lie on a line then the sum of their measures is 180.
15. Two points determine a plane.
16. Space contains at least four points.

17. Two lines can intersect in more than one point.
18. If a line lies in a plane, then all of the points on that line also lie in the plane.
19. If two lines are cut by a transversal and corresponding angles are congruent, then the lines are parallel.
20. If two angles and a side of one triangle are congruent to two angles and a side of another triangle, then the triangles are congruent.
21. The area of a square is the square of the length of a side.